

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 2002030249  
PUBLICATION DATE : 31-01-02

APPLICATION DATE : 14-07-00  
APPLICATION NUMBER : 2000214438

APPLICANT : CATALYSTS & CHEM IND CO LTD;

INVENTOR : KOMATSU MICHIO;

INT.CL : C09D183/04 C09D183/08 H01L 21/312

TITLE : SILICA COATING LIQUID FOR FORMING LOW DIELECTRIC CONSTANT AND SILICA COAT SUBSTRATE WITH LOW DIELECTRIC CONSTANT

ABSTRACT : PROBLEM TO BE SOLVED: To provide a silica coating liquid for forming low-dielectric constant with a dielectric constant as small as  $\leq 2.5$ , having low moisture absorbability and high mechanical strength.

SOLUTION: This coating liquid contains (A) at least one silicon compound selected from the group consisting of alkoxysilanes of the general formula (I):  $X_nSi(OR)^{4-n}$  and silane halides of the general formula (II):  $X_nSiX'^{4-n}$  and (B) an organic template material of the general formula (III):  $[R_1R_2R_3R_4N]^+Y^-$  (in these formulas, X is H, F, a 1-8C alkyl, fluorine-substituted alkyl, aryl or vinyl; R is H, a 1-8C alkyl, aryl or vinyl; X' is a halogen atom; n is an integer of 0-3; R<sub>1</sub> is a 1-20C hydrocarbon group; R<sub>2</sub> to R<sub>4</sub> are each H or a 1-20C hydrocarbon group and may be the same as R<sub>1</sub>; and Y is a halogen atom or OH).

COPYRIGHT: (C)2002,JPO